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November 1, 2012

Mr. Bill Grant
Deputy Commissioner
Department of Commerce, Division of Energy Resources

Via email: DG.Energy@state.mn.us

Subj: Comments on Distributed Generation in Minnesota, with particular reference to solar photovoltaics.

Dear Commissioner Grant,

First of all, thanks to you and the DER staff for your on-going commitment to improving the climate for solar generation in Minnesota. Your efforts to make sure that Solar Rewards was extended will directly result in the preservation and creation of many good jobs in the state. More generally, the Department's ongoing work to reform the rules around distributed generation will ultimately open up cleaner, less expensive energy options for all.

We appreciate the difficulty of managing the interests of the various stakeholders in these discussions. At tenKsolar, we strive to take a broad-minded view of policy, but because our daily work is in solar, our comments here are focused on solar PV.

Following are three clear policy steps we see as essential:

1. Allow consumers and businesses freedom to choose:
We should eliminate arbitrary size limits on distributed generation and allow consumers and businesses the option of meeting all their consumption needs with onsite solar generation with no utility imposed penalty charges for doing so.

DG and solar policy in general must start from the premise that, very soon, the portion of energy that a home or business can buy from solar will cost the energy consumer less that equivalent energy purchased from a utility. Even today, solar offers energy consumers an option entirely free of future price risk and free of pollution, things many find attractive. A solar generation system offers a guaranteed return on investment which more and more consumers and businesses are turning to in uncertain times. The state has a duty to break down the barriers preventing consumers and businesses from choosing solar if that is how they wish to use their money.

2. Look at the actual value of solar distributed generation
Let's get the real value of a solar kWh defined so we can all agree on how to pay solar generators.

A kWh generated by solar has greater raw economic value than a kWh generated from most other sources for the following reasons:

A solar kWh eliminates the need for a kWh from other sources, this is a "starter" value. In addition:

- Solar is generated at or close to point of use so there are few or no losses.
- Solar is generated on peak, reducing peak energy costs*
- Solar reduces the risk from fuel price hedging and environmental regulation changes.
- Solar eliminates some peak generation capacity costs
- Solar has no environmental impact

Once we systematically determine the economic value of a kWh from solar then distributed solar generators will have a clear picture of the long-term value of their generation assets and will be better positioned to evaluate and make investments.

3. Revamp solar incentives to be production based, market adjusted and predictable.
Once points 1 & 2 above, are established the market for solar can at least function as a normal competitive market, with or without incentives, resulting in a certain increased amount of adoption of solar in the normal course of business.

Then we can consider if and how we should incentivize new solar generation. Solar creates jobs, which are a net gain to the local economy. The large scale nature of fossil and fission fueled generators combined with the fact that fuels are all sourced out of state means there is nearly zero marginal gain or loss in jobs derived from incremental increases or decreases in generation. However, when we add solar, we create employment opportunities locally.

Many feel, as we do, that since Minnesota has no inherent fossil or fission fuel resources whatsoever, solar has a real place in our energy picture. Installing solar with our own jobs and local resources is a better way to spend our energy dollars vs. shipping money out of state and out of the country to buy fuels, to say nothing of the environmental advantages of solar. Thus, Minnesota has established incentive programs to encourage the local manufacture and installation of solar. These programs are effective job creators and assure that as the costs of solar grow ever more competitive, Minnesota is not left by the wayside as this industry matures into a major global job generators of the 21st century.

Nothing is worse for an industry than an incentive that comes and goes. Likewise, in a fast-changing industry we cannot "set and forget" an incentive level. If we want real, long lasting investment in solar jobs, we need to show industry that we are in it for the long haul. We can and should create a structure of solar incentives which is simple, tied to energy production and which adjusts down as the market drives out costs. Incentives get smaller and easier when items 1 & 2, above, are addressed first. Austin Energy, for example, established a value of a solar kWh and then set a modest, time limited and declining solar incentive on top of that value to encourage adoption. A program like that can be a great economic value to Minnesota by attracting long term investment and commitment from solar businesses which compete with entrenched public utilities for energy dollars.

In conclusion, we know that utility stakeholders often point to the need to further study the potential system impacts of PV. That is understood. But no other competitive industry ever has the luxury of fully understanding the future impacts of disruptive technologies but rather must react and adapt to them. We suggest allowing consumers and businesses unfettered access to choose solar by immediately breaking down barriers to get a reasonable amount of solar on the grid in the next few years – 5% to 10% perhaps. The utilities will quickly learn from and react to the changes that these competitive generation sources bring.

Thanks for your continued efforts and we look forward to working with DER and other stakeholders to address Minnesota's energy future.

Sincerely,

Joel Cannon
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Bloomington, Minnesota

** In a Solar Load Profile study submitted to the Minnesota PUC by Xcel Energy September 14, 2012, Xcel reported data showing that solar generation reduces peak demand, with a real economic value currently unaccounted for in solar rates.*